

Amendment to the Specification:

Please amend pages one and two of the specification, by inserting the headings required by MPEP § 608.01, as follows:

“POLYMER COMPOSITIONS FOR EXTRUSION COATING

[BACKGROUND OF THE INVENTION]

This invention relates generally to film compositions useful for extrusion coating applications, and more specifically to providing sealant layers for packaging applications.

There are many examples of polymer compositions useful for extrusion coating applications, including blends of linear low density polyethylene (LLDPE) with high pressure (free radical) low density polyethylene (LDPE). Extrusion coating is a means of coating a substrate with a particular polymer such that the substrate is providing functionality such as sealability to yet another substrate or to itself. Examples include juice packs, typically having an interior polymer extrusion coated onto a foil substrate where the polymer coating is then sealed (adhered) to itself. Extrusion coating is a very particular process where “neck-in” is important in forming the coating. “Neck-in” refers to the ability of the polymer formulation to retain its width, or its original dimensions after extrusion. Minimizing the “neck-in” allows for the polymer formulation to more effectively and uniformly coat the substrate.

For example, United States Patent 5,587,247, the disclosure of which is incorporated herein by reference, discloses resin compositions for extrusion molding comprising a high pressure ethylene polymer having an endothermic peak in the range of 80°-120°C, an ethylene copolymer having an endothermic peak in the range of 118°-130°C and an ethylene copolymer having, among other properties, no endothermic peak above 110C.

However, there is still a need for a polymer formulation which reduces “neck-in” while maintaining good sealability.

[BRIEF SUMMARY OF THE INVENTION]

We have now discovered polymer compositions uniquely suited for extrusion coating having minimum “neck-in” and excellent sealing characteristics (for example,

low heat seal initiation temperatures) and toughness properties. These compositions comprise

(A) from 60 to 80 weight percent of a mixture of at least one homogeneously branched polyethylene and at least one heterogeneously branched polyethylene and

(B) from 20 to 40 weight percent of at least one polymer having a melt strength at least twice that of mixture (A). A film layer made from these compositions is also within the scope of the invention.

In another embodiment of the invention, a film is made which comprises at least two layers,

(A) one layer being made from a polymer composition, the composition comprising a mixture of at least one homogeneously branched polyethylene and at least one heterogeneously branched polyethylene and

(B) one other layer comprising at least one other polymer having a melt strength at least twice that of the mixture of (A).

[BRIEF DESCRIPTION OF THE DRAWINGS]

Figure 1 shows a graph of differential scanning calorimetry (DSC) of the mixture (A) of the invention. Note that three distinct melting peaks are evident.

[DETAILED DESCRIPTION OF THE INVENTION]

The polymer resins usable in this invention are polyethylenes, and for component (B) additionally polypropylene random copolymer (PPRCP), styrene/butadiene copolymers (SBC), polystyrene, ethylene-vinyl acetate copolymers (EVA) and cyclic/olefin copolymers (COC) can be used.

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